The Department of Energy
Washington, DC 20585

March 22, 1996

EPA RCRA Information Center
U.S. Environmental Protection Agency (5305W)
401 M Street, S.W.
Washington , D.C. 20460

Docket Number F-95-PH4A-FFFFF

Dear Sir or Madam:

Re: 61 FR 2338, "Land Disposal Restrictions--Supplemental Proposal to Phase IV: Clarification of Bevill Exclusion for Mining Wastes, Changes to the Definition of Solid Waste for Mineral Processing Wastes, Treatment Standards for Characteristic Mineral Processing Wastes, and Associated Issues"

On January 25, 1996, the Environmental Protection Agency (EPA) published a supplement to the Land Disposal Restrictions (LDR) Phase IV proposed rule, which was previously published on August 22, 1995 (60 FR 43654). The supplemental proposed rule primarily deals with regulatory issues applicable to mineral processing wastes. In particular, the notice proposes changes to the current definition of solid waste by providing a conditional exclusion for mineral processing secondary materials that are further processed within the industry, and proposes LDR treatment standards for hazardous wastes from mineral processing operations.

In addition, the supplemental proposed rule proposes to amend the definition of solid waste by excluding (from RCRA jurisdiction) processed scrap metal that is recycled and shredded circuit boards destined for metal recovery that are managed in containers prior to recovery. Furthermore, the supplemental proposed rule proposes a change to the current LDR notification and certification requirement, suggests certain regulatory modifications intended to clarify and "clean up" existing LDR requirements, and addresses streamlining state RCRA authorization as it applies to land-based management of mineral processing waste.

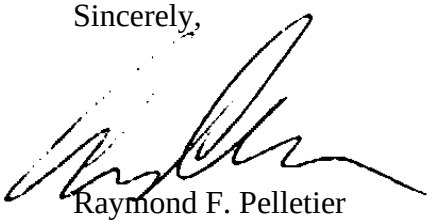
The Department of Energy (DOE) appreciates the opportunity to raise concerns and provide input in response to the supplement to the LDR Phase IV proposed rule. The enclosed comments refer to potential regulatory approaches and topics covered by the supplemental proposed rule, and are presented for your consideration in finalizing changes to the LDR requirements. These comments combine the viewpoints and concerns identified by DOE Field Organizations and Program Offices.

DOE generally supports the proposed exclusions (of certain materials being recycled) that are outlined in the supplemental proposal, as well as the conditions imposed thereon. DOE also supports EPA's continuing efforts to clarify and simplify the LDR regulations, particularly as they relate to notification and certification. Many of the enclosed Departmental comments

request clarification and further guidance in relation to the proposed changes to the RCRA requirements, and include some suggestions concerning the associated regulatory language.

The enclosed comments have been divided into two sections: general and specific. The general comments address broad concerns. The specific comments relate directly to potential regulatory approaches and issues raised in particular sections of the supplemental proposed rule. For clarity, each specific comment is preceded by a reference to the section of the supplemental proposed rule to which it applies and a brief description in bold-face type of the issue within that section to which DOE's comment is directed.

Sincerely,



Raymond F. Pelletier
Director
Office of Environmental Policy and Assistance

Enclosure
cc: M. Petruska, EPA, OSW, Waste Treatment Branch (5302W)
S. Slotnick, EPA, OSW, Waste Treatment Branch (5302W)

UNITED STATES DEPARTMENT OF ENERGY
Comments On LAND DISPOSAL RESTRICTIONS--
SUPPLEMENTAL PROPOSAL TO PHASE IV

SUPPLEMENTAL PROPOSED RULE (61 FR 2338; January 25, 1995)

GENERAL COMMENTS

1. EPA is proposing to amend the definition of solid waste by excluding processed scrap metal being recycled from RCRA jurisdiction. The Agency is also proposing to exclude shredded circuit boards destined for metal recovery that are managed in containers during storage and shipment prior to recovery from the definition of solid waste to facilitate recovery of this material.

DOE generally supports these proposed regulatory changes in that they will facilitate and expedite the recycling of two types of materials which are managed at certain DOE facilities. Moreover, by minimizing the regulatory and reporting burdens associated with these recoverable materials, the proposed regulatory changes provide economic impetus that should benefit the regulated community and the recycling industry.

2. In Part Three, Section II of the supplemental proposed rule, EPA discusses State authority primarily as it relates to Part One of the notice which pertains to mineral processing issues.

DOE does not believe that State authority with respect to the "Other RCRA Issues," covered under Part Two of the proposed rule, has been adequately addressed. Specifically, clarification should be provided as to whether the exclusions of processed scrap metal and shredded circuit boards are considered by the Agency to be less stringent than current Federal regulations, and whether authorized states would be required to modify their programs to adopt requirements equivalent to the provisions contained in the proposed rule with respect to scrap metal and circuit boards.

SPECIFIC COMMENTS

Part One: Mineral Processing Issues

I. Whether Mineral Processing Secondary Materials Recycled Within the Industry Should be Considered to be Solid Wastes

I.F. Proposed Regulatory Scheme

I.F.1 Generally Applicable conditions

I.F.1.a. Conditions Related to Legitimate Recycling

1. p. 2343, col. 1 - p. 2344, col. 1 -- EPA proposes conditions for assessing the legitimacy of operations involving the recycling of mineral processing secondary materials. These conditions, which generally address mineral content of the secondary materials, include establishment of an ore cutoff grade, a normal operating range for mineral processing units, a recovery operation efficiency standard, and an economic test. These quantitative legitimacy tests are proposed to discourage "sham" recycling.

DOE supports EPA's proposal to quantify the criteria for determining whether recycling of mineral processing secondary materials is legitimate. Although the regulations of 40 CFR 261.2(f) require a person conducting recycling operations to demonstrate that such activities are legitimate, quantitative factors for assessing and documenting such claims are not available (as EPA indicates in the preamble). With this in mind, it should seem appropriate for EPA to revise this regulatory provision, or establish a separate regulatory section specific to the mineral processing industry, that defines conditions by which the Agency will determine whether legitimate recycling is taking place.

The proposed conditions for preventing sham recycling of mineral processing secondary materials (i.e., conditions for determining whether the method for recycling is legitimate) appear to be appropriate. As discussed in the preamble, these conditions should not pose an undue burden on those persons recycling mineral processing secondary materials and appear to be an inherent determination of the industry. For example, there would be no economic incentive to process secondary materials if the value of the recovered product was not greater than the cost of operating the recovery process. Similarly, defining an ore cutoff grade and the normal operating range of the mineral processing unit should be part of the mineral processing industry standards that are already in place. Therefore, defining these types of criteria as a regulatory standard for determining legitimate recycling would not appear to place an undue burden on the regulated community (i.e., the mineral processing industry).

As a separate regulatory matter, DOE encourages EPA to consider establishing more quantifiable criteria for defining legitimate recycling for the regulated community as a whole. As discussed in the preamble, claims that materials are being legitimately recycled are made on a case-by-case basis. Clarification of the criteria of factors relevant in demonstrating that certain recycling operations are being conducted legitimately are discussed in various preambles. However, it would be helpful to the regulated community if such criteria were codified as part of 40 CFR 261.2(f) or other appropriate sections of Part 261.

I.F.1.c. Conditions Relating to Groundwater Protection

1. p. 2345, col. 1 - p. 2347, col. 2 -- EPA proposes that land-based units receiving mineral processing secondary materials not contribute to significant groundwater contamination through discard. EPA proposes to set out in the rule "an

environmental performance standard that would indicate that units cannot be used as a means of discard and hence be part of the waste disposal problem." To meet this condition, a facility could: 1) demonstrate that it is not polluting groundwater at levels exceeding the Maximum Contaminant Level for any hazardous constituent likely to be in the secondary materials; 2) design units in a prescribed manner to obviate the need for such a demonstration; or 3) obtain a determination from an authorized state or from the Regional Administrator that the unit in question provides adequate containment and will not become part of the waste disposal problem. EPA requests comment on these three alternatives.

With respect to mineral processing secondary materials that become excluded from the definition of solid waste under this rulemaking, clarification should be provided relative to EPA's legal authority to regulate land-based units which manage such materials (i.e., materials that are not defined as a solid waste pursuant to RCRA Subtitle C regulation).

2. **p. 2346, col. 1 -- EPA requests comment on groundwater monitoring well placement under the first alternative described above (demonstration that MCLs are not being exceeded in groundwater). Placement of downgradient wells at the facility boundary or other alternative location "based on the potential for exposure to humans or sensitive ecosystems, and other site-specific factors such as topography, climate, and hydrogeology" might increase the efficiency in the use of monitoring resources.**

DOE believes that EPA's proposal on alternative well placement should be encouraged. If successful, this approach could lead to a more flexible monitoring approach in meeting other groundwater monitoring requirements.

I.F.1.d. Issues Related to Unit Closure

1. **p.2347, col 2 -- EPA solicits comment on whether there should be a mandatory condition that all process units (for land-based units in the mineral processing industry) must remove hazardous wastes remaining in the unit at the time the unit stops operation. Hazardous wastes would have to be removed within 90 days from when the unit ceases operation. This condition would be analogous to the existing requirements for manufacturing process units under §261.4(c).**

DOE supports the proposal (for land-based units in the mineral processing industry) to require removal of hazardous wastes from land-based units within 90 days from the times such units cease operation. As EPA indicates in the preamble, this is consistent with the current regulatory provision for manufacturing process units pursuant to §261.4(c). DOE requests clarification; as to how the Agency intends to codify this provision. As currently written, §261.4(c) specifically states that waste generated in surface impoundments is not eligible for this exemption. For the sake of clarity, if EPA decides to promulgate this requirement, it should be established as a separate regulatory exclusion and not be associated with §261.4(c).

II. Addition of Mineral Processing Secondary Materials to Units Processing Bevill Raw Materials

II.D. Mixing of Mineral Processing Hazardous Wastes With Bevill Wastes

II.D.2 Proposed Amendments to Bevill Mixture Rule

1. p. 2352, col 3 -- EPA proposes to amend the definition of hazardous waste under 40 CFR 261.3 for the purposes of making all of the "normal Subtitle C consequences apply when hazardous wastes are disposed with, stored with, mixed with, or otherwise combined with Bevill-exempt solid wastes." The specific revisions to the regulatory language affect §§261.3(a)(2)(i) and (iii). EPA is taking this position so that mixing of hazardous wastes with Bevill-exempt wastes will not be used as a means to circumvent hazardous waste regulation.

The proposed revisions [as presented in this supplemental proposal to LDR Phase IV] to the regulatory language under §261.3(a)(2)(iii) reads as follows (see p. 2371, col. 3 - p. 2372, col. 1):

> **§261.3 Definition of solid waste**:
>
> (a) A solid waste, as defined in §261.2, is a hazardous waste if:
>
> * * *
>
> (2) It meets any of the following criteria:
>
> * * *
>
> (iii) It is a mixture of a solid waste and a hazardous waste that is listed in subpart D of this part solely because it exhibits one or more of the characteristics of hazardous waste identified in subpart C of this part. (However, nonwastewater mixtures are still subject to the requirements of part 268 of this chapter, even if they no longer exhibit a characteristic at the point of land disposal.)
>
> * * *

DOE generally supports the proposed revisions to the regulatory language in §261.3, but expresses the following concern. The majority of the regulatory language that currently exists in §261.3(a)(2)(iii) was established on November 17, 1981 (see 46 FR 56588) as an amendment to the original RCRA mixture rule. It did not specifically address how the mixture rule would apply to Bevill waste. EPA addressed the issue related to Bevill wastes in the September 1, 1989 rule (see 54 FR 36592). At that time, the following clause was added to the mixture rule to account for Bevill waste:

". . . or unless the solid waste is excluded from regulation under §261.4(b)(7) and the resultant mixture no longer exhibits any characteristic of hazardous waste identified in subpart C of this part for which the hazardous waste in subpart D of this part was listed."

Under the regulatory language proposed in this supplementary notice, EPA is now suggesting that in addition to the above language, another clause occurring in §261.3(a)(2)(iii) also be removed. This clause occurs immediately before the one quoted above, and reads as follows:

". . . unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in subpart C of this part . . . "

Removing this second clause would eliminate the portion of the exemption that has been present in the mixture rule since November 17, 1981, as well as removing the portion having to do with Bevill waste. If the Agency's intent is to make conforming changes to the mixture rule to that account solely for the new proposal having to do with Bevill waste, then the proposed revisions go beyond the apparent intent. DOE believes that EPA has probably inadvertently deleted more from the existing mixture rule than was intended. However, if EPA did fully intend to eliminate the second clause quoted above (i.e., as proposed), then insufficient public notice regarding this revision change has been given to the regulated community insofar as the change is reportedly only for conforming the mixture rule relative to the proposed regulatory changes involving mineral processing wastes. DOE requests that the Agency provides clarification in regards to the proposed revisions to the regulatory language in §261.3(a)(2)(iii).

Part Two: Other RCRA Issues

I. Exclusion of Processed Scrap Metal and Shredded Circuit Boards from the Definition of Solid Waste

I.A. Processed Scrap Metal Being Recycled

I.A.2. Background

1. p. 2361, col. 3 -- EPA describes the proposed exclusion of processed scrap metal being recycled by referring to its "commodity-like" nature and to the Agency's belief that "processed scrap metal being recycled should be excluded from the definition of solid waste because this type of material has not been shown to be part of the waste disposal problem." EPA also describes the existing regulatory exemption from regulation under RCRA Subtitle C of all scrap metal being recycled as "an interim measure to allow the Agency to study scrap metal management."

As explained in the preamble, EPA has heretofore exempted all scrap metal being recycled

from regulation under RCRA Subtitle C, but not from the definition of solid waste in 40 CFR 261.2. The definition of hazardous waste pursuant to 40 CFR 261.3 is specifically limited to those wastes defined under 40 CFR 261.2 as solid wastes. Thus the definition of hazardous waste would not include processed scrap metal being reclaimed under the proposed exclusion. Under the mixture rule [§§261.3(a)(2)(iii) and (iv)], mixtures of solid wastes with listed hazardous wastes, and mixtures of solid wastes and hazardous wastes that exhibit hazardous waste characteristics, are regulated as hazardous. Considering the above-mentioned regulatory provisions and the proposal to amend the definition of solid waste by excluding processed scrap metal being recycled from RCRA jurisdiction, clarification is requested as to the regulatory status (and exact applicability of the RCRA regulations) to the potential situation where scrap metal (i.e., processed scrap metal being reclaimed) is contaminated with a hazardous waste residue.

I.A.3. Definition of Processed Scrap Metal

1. **p. 2361, col.3 - p. 2362, col. 1 -- EPA describes the scope of the proposed scrap metal exclusion (i.e., it is "restricted to scrap metal which has been processed by scrap metal recyclers to be traded on recycling markets for further reprocessing into metal end products"), offers a definition of "processed" scrap metal, and introduces the terms "unprocessed" and "partially processed" scrap metal. EPA further limits the extent of the exclusion by stating that "processed scrap metal does not include any distinct components separated from unprocessed or partially processed scrap metal that would not otherwise meet the current definition of scrap metal."**

The definition for "processed scrap metal" is clearly described in the proposed amendment to the regulatory language for §261.1(c)(9). The Agency should consider equally explicit definitions for "unprocessed" and "partially processed" scrap metal. Furthermore, clarification would be helpful in regards to the points(s) at which processing may take place [i.e., relative to the proposed exclusion of processed scrap metal being recycled].

As described in the preamble to the supplemental notice, the proposed exclusion (and associated definition) of processed scrap metal is "restricted to scrap metal which has been processed by *scrap metal recyclers*" [emphasis added]. The preamble and proposed regulatory language [61 FR 2371; §261.1(c)(9)] also provide a reasonable set of criteria for what is meant by "processing" of scrap metal. However, clarification is not offered as to who does and does not belong to the community of "scrap metal recyclers." Thus, it is possible that anyone who carries out the processes described qualifies as a "scrap metal recycler," and thus, would be eligible for the exclusion. DOE requests that EPA clarify its intent concerning the qualifications of "scrap metal recyclers."

The term "partially processed" scrap metal is introduced in the preamble but is not defined, nor is it included in the proposed regulatory language. It can be inferred that scrap metal that still contains "distinct components . . . that would not otherwise meet the current definition of

scrap metal" would be considered partially processed, and would not be eligible for the exclusion. DOE suggests that, if "partially processed" is intended to provide a meaningful distinction to generators and recyclers of scrap metal, EPA should provide specific clarification or guidance on how to distinguish this form of scrap metal and on the consequences relative to the proposed exclusion. Such clarification or guidance would help the regulated community determine whether scrap metal containing certain "distinct component" could be subject to the proposed exclusion.

Clarification is requested in regards to whether the applicability of the exclusion would be affected by the point at which processing is conducted -- e.g., the scrap metal is "processed" at the point of generation (by the generator) versus by a commercial "processing" facility. Guidance on practices considered to be manual separation methods at the point of generation, and the applicability of speculative accumulation requirements per §261.2(c) to the proposed exclusion would also be useful. .

I.B. Shredded Circuit Boards

1. p. 2362, col.3 - p. 2363, col.2 -- EPA is proposing to exclude shredded circuit boards destined for metal recovery that are managed in containers during storage and shipment (prior to recovery) from the definition of solid waste in order to facilitate recovery of this material. Used whole (i.e., intact) circuit boards when sent for reclamation may be considered to be scrap metal and therefore exempt from RCRA regulation. Used whole circuit boards, however, do not meet the definition of processed scrap metal (thus, the proposed exclusion for processed scrap metal would not apply to these materials).

DOE supports EPA's proposal to exclude shredded circuit boards from the definition of solid waste when such materials are managed in containers during storage and shipment prior to recovery. However, as discussed in the following paragraphs, the Department requests clarification in regards to certain issues and terms associated with the management of circuit boards destined for recovery.

Under the proposed exclusion, shredded circuit boards that would potentially exhibit a hazardous characteristic would remain outside of RCRA hazardous waste regulation. It would be useful to the regulated community if EPA were to provide clarification in the final rule explaining that shredded circuit boards managed in containers need not be characterized (i.e., analyzed using the TCLP) and that there are no time limitations associated with the storage of shredded circuit boards subject to the exclusion.

In the preamble, EPA uses two expressions (specifically, "properly containerized" and "managed in containers") in describing how shredded circuit boards must be stored and shipped to qualify for the proposed exclusion from the definition of a solid waste. If it is EPA's intent that the types of containers typically used to ship circuit boards will suffice for

the purposes of the proposed exclusion,[1] then the term "properly containerized" should be removed in favor of the language such as "managed in containers". Use of the term "properly containerized" is vague (without further clarification) and therefore open to a range of interpretations.

EPA acknowledges that processing through "shredders, hammer mills, and similar devices to decrease the size of the boards" is common (p. 2362, col.3). DOE requests EPA to clarify whether, and under what circumstances, such volume-reduction measures are to be considered treatment of hazardous waste. Compactible solid waste material (such as Tyvek or paper) is routinely compacted to remove void spaces and maximize the efficiency of the container. There are instances where States have required treatment permits for volume reduction measures such as compacting, hammering, or shredding. DOE believes in general that volume-reduction measures that do not alter the fundamental physical, chemical, or biological character of the material, and are not intended to remove or reduce the hazardous nature of the material in any way, should not be considered "treatment." As such, no permits for this type of activity should be necessary.

II. Proposed Reduction in Paperwork Requirements for the Land Disposal Restrictions Program

II.A Section 268.7

1. p. 2363, col. 3; and p. 2372. col 3 - p. 2373, col. 1 - EPA proposes to change 40 CFR 268.7(a)(2) which currently requires generators to notify the treatment or storage facility in writing with each shipment of a waste that does not meet the LDR treatment standards. As revised, 40 CFR 268.7(a)(2) would require notification to the treatment or storage facility only with the first shipment of such a waste. A new notice would be required only if changes occurred to the waste or process generating the waste, or the waste was shipped to a different treatment or storage facility. The notice must include the information in column "268.7(a)(2)" of the Notification Requirements Table in 40 CFR 268.7(a)(4).

DOE supports the proposed modification. However, as was stated in DOE's comments on the LDR Phase IV proposed rule,[2] EPA should conform the title used in 40 CFR 268.7(a)(2) to refer to the table in 40 CFR 268.7(a)(4) with the actual title of the table. Presently the actual title is "Paperwork Requirements Table," rather than "Notification Requirements Table."

In addition, DOE requests clarification in regards to the extent of the notification and

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[1] As EPA states in the preamble, shredded circuit boards are often shipped in boxes, bulkbags, supersacks, drums, and other containers (61 FR 2363, col. 1).

[2] DOE Comments, Proposed Rule regarding Land Disposal Restrictions -- Phase IV, Specific Comment III.A.3.c(1)(b)(i), p. 25 (11/20/95).

certification requirements that apply in cases where a restricted waste is generated, stored, treated and disposed at the same site. As EPA is aware, DOE operates large, complex facilities which may include within their boundaries, but not proximate to one another, both generating units and treatment, storage, or disposal units. In such circumstances, shipments of hazardous waste may occur entirely "on-site" (and such shipments must comply with certain notification requirements). DOE requests that EPA clarify how the proposed change to the LDR notification requirements (as well as all other LDR notification requirements) apply to such on-site shipments.

2. **p. 2363, col. 3 - p. 2364, col. 1 - The proposed one-time notification and certification requirements for wastes that do not meet the treatment standard as generated would not apply to lab packs. The Agency asserts that the one-time notification requirement would be inappropriate for lab pack wastes because it is highly unlikely that lab packs will contain exactly the same hazardous wastes each time they are generated. EPA specifically requests comments on this issue.**

Although lab packs are highly variable in most cases, there are certain instances where generators ship, either on a regular or a periodic basis, routine and consistent lab packs. Typically, lab packs are managed in accordance with §268.42(c) and may occur on a periodic basis. It would seem appropriate that for lab packs which are managed based on a consistent process or routine waste stream, the same one-time notification relief should be afforded that is being proposed for other restricted wastes (provided ". . . the waste, the process, and the receiving facility do not change" from waste shipment to waste shipment). Generators (and treatment facilities shipping residuals for further treatment or ultimate disposal) will be required to make this determination for each waste stream. Generators of lab packs should be no different in this respect.

3. **p. 2364, col. 1; and p. 2373, col. 1 - EPA proposes to change 40 CFR 268.7(b)(4) which currently requires treatment facilities to notify subsequent treatment or disposal facilities of the LDR status of wastes or treatment residues with each shipment. As revised, 40 CFR 268.7(b)(4) would require notification by treaters only with the initial shipment. A new notice would be required only if changes occurred to the waste or treatment residues, or if shipment occurred to a different treatment or disposal facility.**

DOE supports the proposed modification. However, as was stated in DOE's comments on the LDR Phase IV proposed rule,[3] it appears that the reference to 40 CFR 261.3(e) in proposed 40 CFR 268.7(b)(4) should be changed to either 40 CFR 261.3(f)(1) or 261.3(f)(2), which exclude certain hazardous debris from regulation. EPA removed 40 CFR 261.3(e) from the

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[3] DOE Comments, Proposed Rule regarding Land Disposal Restrictions -- Phase IV, Specific Comment III.A.3.c(1)(m), p. 28 (11/20/95).

regulations on October 30, 1992 [57 FR 49279]. Therefore, since 40 CFR 261.3(e) has been removed from the regulations, and since, even before it was removed, §261.3(e) did not address hazardous debris, DOE believes the reference to it in proposed §261.7(b)(4) is an error.